

WHAT IS CLAIMED IS

1. A system for processing wireless data comprising:  
a gateway radio packet interface receiving radio packet  
data from a gateway radio packet node;

5 a content switch system coupled to the gateway radio  
packet interface, the content switch system receiving the  
radio packet data, extracting one or more predetermined data  
fields from the radio packet data, and performing one or  
more predetermined actions based on the extracted data  
10 fields; and

a serving radio packet interface coupled to the content  
switch system, the serving radio packet interface  
transmitting the radio packet data to a serving radio packet  
node.

15 2. The system of claim 1 wherein the content switch  
system further comprises a quality of service system and  
extracts user priority data from the radio packet data,  
wherein the quality of service system allocates bandwidth  
20 based upon the user priority data and stores bandwidth  
allocation data in the radio packet data.

25 3. The system of claim 1 wherein the content switch  
system further comprises a multicast system and extracts  
multicast setup data and user identification data from the  
radio packet data, wherein the multicast system addresses the  
radio packet data based upon the user identification data and  
the multicast setup data.

4. The system of claim 1 wherein the gateway radio  
packet interface comprises a gateway tunneling protocol  
system extracting gateway tunneling protocol data from the  
radio packet data and providing the gateway tunneling  
5 protocol data to the content switch system.

5. The system of claim 1 wherein the content switch  
system further comprises a serving handoff system and the  
serving radio packet interface transmits the radio packet  
10 data to at least two serving radio packet nodes, wherein the  
serving handoff system extracts the data fields from the  
radio packet data when the radio packet data is transferred  
from a first serving radio packet node to a second serving  
radio packet node.

15 6. The system of claim 1 wherein the content switch  
system further comprises a network handoff system and the  
serving radio packet interface transmits the radio packet  
data to at least two serving radio packet nodes, wherein the  
20 network handoff system extracts the data fields from the  
radio packet data when the radio packet data is transferred  
from a first serving radio packet node to a second serving  
radio packet node.

7. A system for processing wireless data comprising:  
a content switch system coupled to a packet network,  
the content switch system receiving radio packet data from  
the packet network, extracting one or more predetermined  
5 data fields from the radio packet data, and performing one  
or more predetermined actions based on the extracted data  
fields; and

a gateway radio packet interface receiving the radio  
packet data from the content switch system and transmitting  
10 the radio packet data to a gateway radio packet node.

8. The system of claim 7 wherein the gateway radio  
packet interface comprises an Internet protocol system,  
wherein the radio packet data is received from the packet  
15 network contained within an Internet protocol packet, and the  
Internet protocol system extracts the radio packet data from  
the internet protocol packet.

9. The system of claim 7 wherein the content switch  
20 system further comprises a serving handoff system  
transmitting the radio packet data to at least two serving  
radio packet nodes, wherein the serving handoff system  
extracts the data fields from the radio packet data when the  
radio packet data is transferred from a first serving radio  
25 packet node to a second serving radio packet node.

10. The system of claim 7 wherein the content switch system further comprises a network handoff system transmitting the radio packet data to at least two serving radio packet nodes, wherein the network handoff system  
5 extracts the data fields from the radio packet data when the radio packet data is transferred from a first serving radio packet node to a second serving radio packet node.

11. The system of claim 7 wherein the content switch  
10 system further comprises a quality of service system and extracts user priority data from the radio packet data, wherein the quality of service system allocates bandwidth based upon the user priority data and stores bandwidth allocation data in the radio packet data.

12. The system of claim 7 wherein the content switch system further comprises a multicast system and extracts  
15 multicast setup data and user identification data from the radio packet data, wherein the multicast system addresses the  
20 radio packet data based upon the user identification data and the multicast setup data.

13. A method for processing wireless data comprising:  
receiving radio packet data;  
determining whether a trigger event has occurred;  
extracting one or more first data fields from the radio  
5 packet data if the trigger event has occurred;  
performing a predetermined function using the one or  
more data fields to generate one or more second data fields;  
storing the second data fields in the radio packet data  
to create modified radio packet data; and  
10 transmitting the modified radio packet data to a  
serving radio packet node.

14. The method of claim 13 wherein receiving the radio  
packet data comprises receiving the radio packet data from a  
15 gateway radio packet node.

15. The method of claim 13 wherein receiving the radio  
packet data comprises receiving the radio packet data from a  
packet network, wherein the radio packet data is contained  
20 within an Internet protocol packet.

16. The method of claim 13 wherein determining whether  
a trigger event has occurred comprises determining whether  
one of the group of events comprising activation of a packet  
25 data protocol channel, serving radio packet node handoff,  
mobile network handoff, or receipt of a request for radio  
packet data modification has occurred.

17. The method of claim 13 wherein extracting one or more first data fields from the radio packet data if the trigger event has occurred comprises extracting one or more of the group of data fields comprising an International  
5 Mobile Subscriber Identity, a Network Layer Service Access Point Identifier, a Mobile Station ISDN number, a packet data protocol type, a packet data protocol address, a dynamic address identifier, an APN network identifier, a quality of service profile, a serving GPRS support node  
10 address, a mobile station not reachable indicator, a serving GPRS support node recovery identifier, a Sequence Number Downlink, a Sequence Number Uplink, a charging identifier, and a network protocol data unit reordering identifier.

18. The method of claim 13 wherein performing the predetermined function using the one or more data fields to generate one or more second data fields comprises one or more of the functions comprising determining transmission  
15 priority using a quality of service profile, determining whether to transmit multicast data using an International Mobile Subscriber Identity, determining whether a next radio packet data packet has been received using a Sequence Number Downlink or a Sequence Number Uplink, and determining  
20 network resource allocation using a mobile station not reachable indicator.  
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19. The method of claim 13 wherein storing the second data fields in the radio packet data to create the modified radio packet data comprises storing one or more of the group of data fields comprising a International Mobile Subscriber  
5 Identity, a Network Layer Service Access Point Identifier, a Mobile Station ISDN number, a packet data protocol type, a packet data protocol address, a dynamic address identifier, an APN network identifier, a quality of service profile, a serving GPRS support node address, a mobile station not  
10 reachable indicator, a serving GPRS support node recovery identifier, a Sequence Number Downlink, a Sequence Number Uplink, a charging identifier, and a network protocol data unit reordering identifier.

20. The method of claim 13 wherein transmitting the modified radio packet data to the serving radio packet node comprises transmitting the modified radio packet data inside  
15 of an Internet protocol packet to a gateway radio packet node.